

①



250 beans were dropped on the rug pictured. If 146 beans landed on the shaded region, about how big is the shaded area?

② Write an equation for the line through the points  $(8, 24)$  and  $(18, 43)$ .

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$$1) \frac{146}{250} \times \frac{300}{300} = 175.2$$

$$300 \times 146 = 43800 \div 250 = 175.2$$

$$2) \frac{18-8}{43-24} = \frac{10}{19}$$

$$(1.9)$$

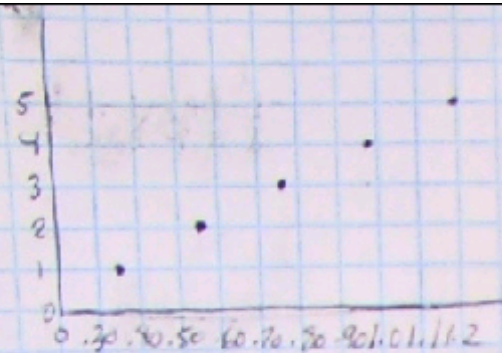
$$y = 1.9(x-8) + 18$$

$$y = 1.9(x-24) + 43$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$y = m(x - x_1) + y_1$$





5.3 #8

(2)

B.

$$\frac{.55 - .34}{.2 - .1} = \frac{.21}{1}$$

every oz. the cost  
goes up \$.21.

C.  $.21x + .13$

d.  $\underline{.21 \times (10) + .13} = \underline{2.23}$

e

$$34 - 13$$

13 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

$$0.865$$

$$.21 \times 3.5 + .13 = 0.865$$

$$2.041$$

$$.21 \times 9.1 + .13 = 2.041$$

F. Yes because the "y" intercept  
stays the same meaning the line  
will stay in a straight line



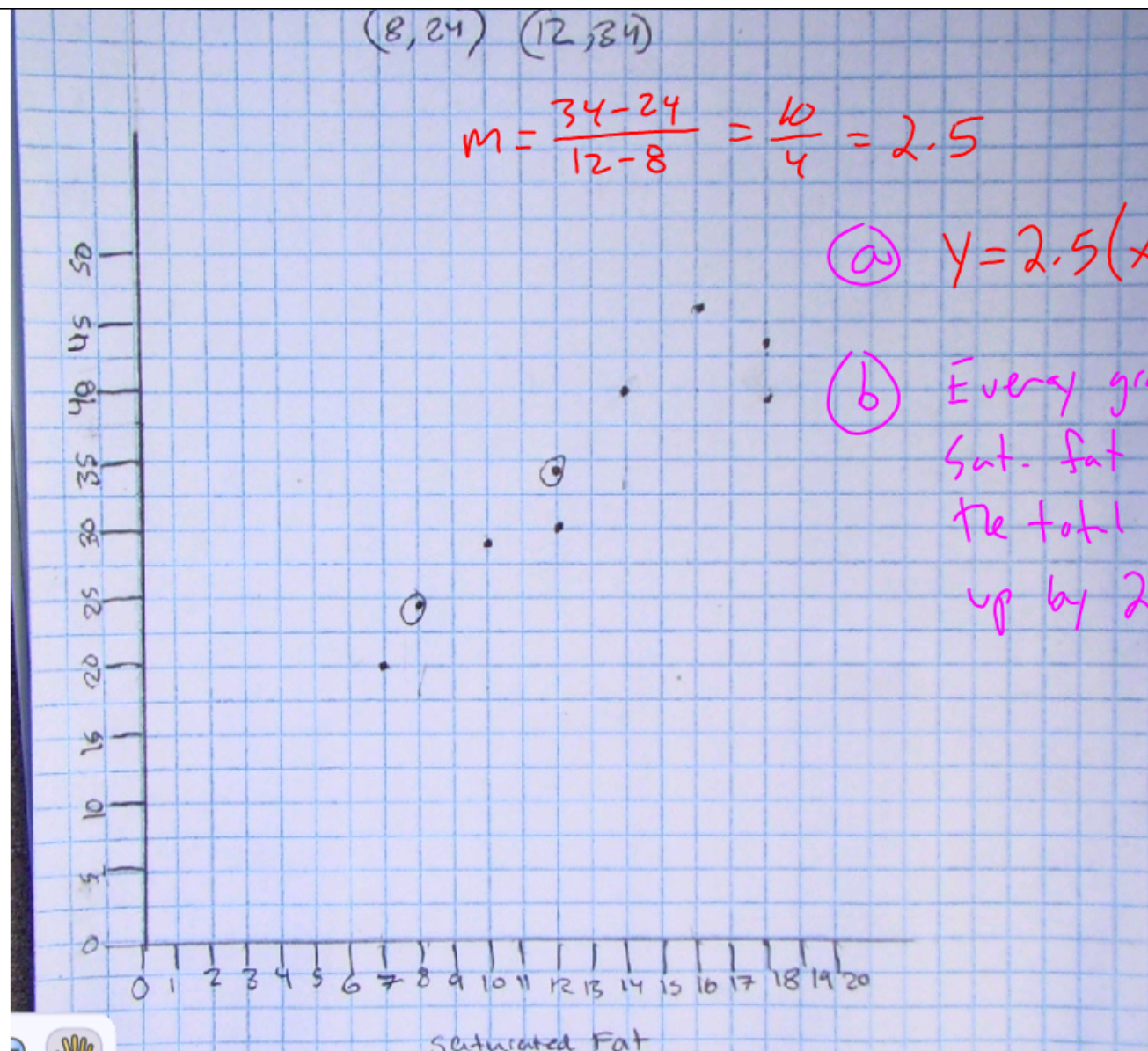


## Nutrition Facts

Burger	<del>X</del> Saturated fat (g)	<del>Y</del> Total fat (g)
Burger King "Big King"	18	43
Burger King "Double Cheeseburger with Bacon"	18	39
Burger King "Whopper Jr."	8	24
Burger King "Whopper with Cheese"	16	46
Hardee's "The Works"	12	30
Jack in the Box "Jumbo Jack with Cheese"	14	40
McDonald's "Arch Deluxe with Bacon"	12	34
McDonald's "Big Mac"	10	28
Wendy's "Big Bacon Classic"	12	30
Wendy's "Single with Everything"	7	20

(Consumer Reports, Dec. 1997, pp. 12-13)

- Find a linear equation to model the data.
- Tell the real-world meaning of the slope and intercept of your line.
- Predict the total fat in a burger with 20 g of saturated fat.
- Predict the saturated fat in a burger with 50 g of total fat.





$(8, 24)$   $(12, 34)$

$$y = 2.5(x - 8) + 24$$

$$y = 2.5(20 - 8) + 24$$

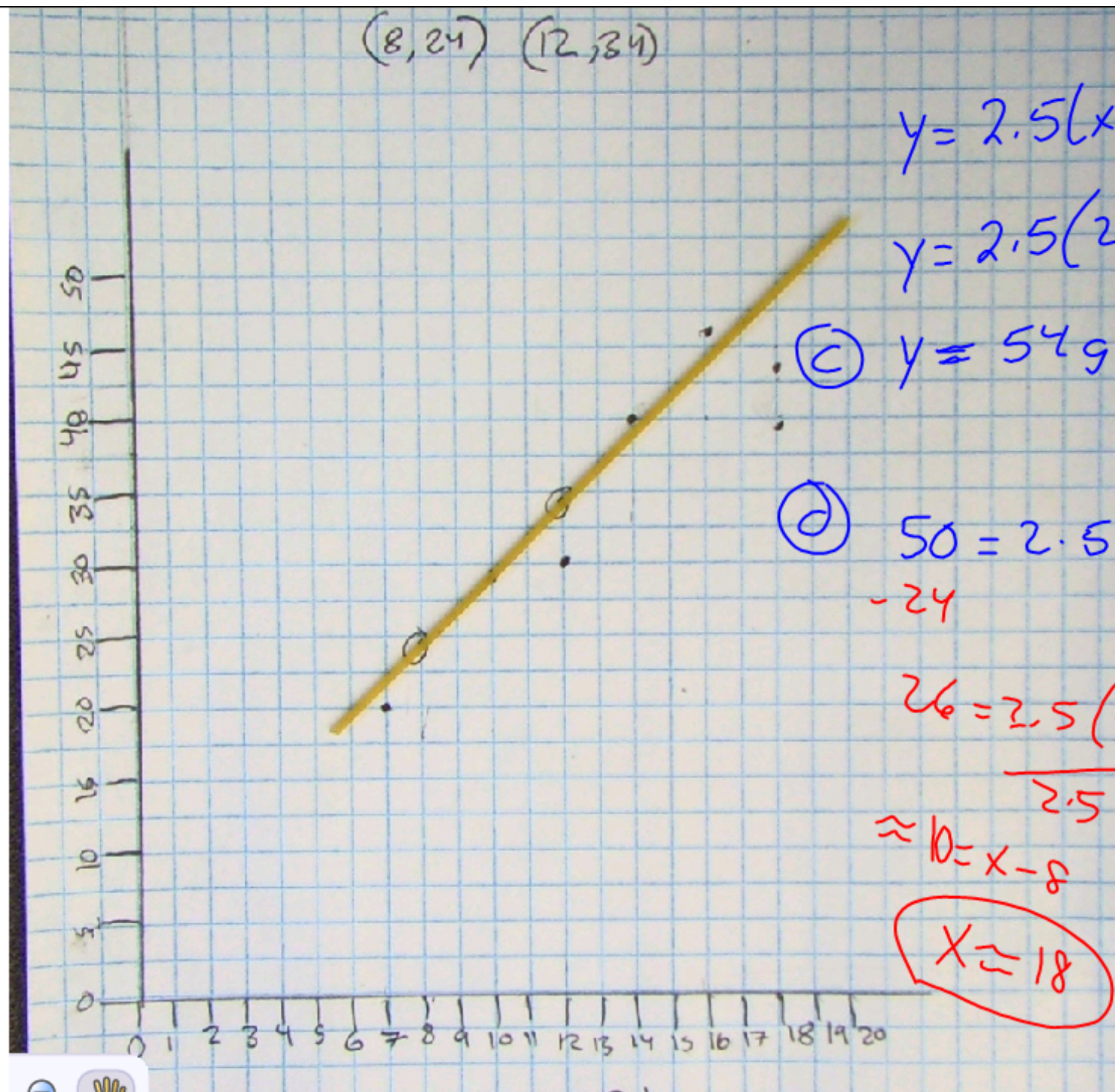
©  $y = 54g$

©  $50 = 2.5(x - 8) + 24$   
 $-24$   $-24$

$$26 = 2.5(x - 8)$$

$$\approx 10 = x - 8$$

$$x \approx 18$$



① Give the equation for slope

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

② Give the formula for point-slope

$$y = \underset{\text{slope}}{m}(x - \underset{\text{point}}{x_1}) + y_1$$

③ Write an equation for the line passing through (3, 7)  
(8, 5)

$$\frac{5-7}{8-3} = \frac{-2}{5}$$

$$y = -\frac{2}{5}(x-3) + 7$$

④ Solve for x

$$\begin{array}{rcl} \text{a)} & 6x - 14 & = 27 \\ & +14 & +14 \end{array}$$

$$\frac{6x}{6} = \frac{41}{6} \quad x = 6.8\overline{3}$$

Your Hw is

5.2 #9, 12